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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KUMAR, PANKAJ

ART UNIT PAPER NUMBER

2631

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,200

Applicant(s)

ASIA ET AL.

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11, 13-17 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 11 and 23-27 is/are allowed.
- 6) ☒ Claim(s) 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima USPN 5,444,736 in view of Federal Standard 1037C, Telecommunications: Glossary of Telecommunication Terms, <http://www.its.bldrdoc.gov/fs-1037/37search.htm>, herein after standard 1037C, and Spears USPN 5,740,525. Here is how the references teaches the claims:

4. As per claim 13: A device for locking onto a downstream frequency, comprising: a radio (Kawashima col. 4 line 47) configured to, receive a plurality of signals (Kawashima fig. 2: receive through antenna 1 many signals over time as the system operates), at least one of said plurality of signals being transmitted on said downstream channel (Kawashima col. 1 lines 20-22: signal received by a receiver; col. 10 lines 42+: reception channel frequency transmitted from a base station; col. 9 lines 43-47; downstream is the direction from transmitter to the receiver), lock onto said downstream channel by changing a receiving frequency of the radio signals from

the wireless modem according to a predetermined frequency plan until the radio is locked onto said downstream channel (not in Kawashima but would be obvious as explained below), detect a center frequency of said downstream channel (not in Kawashima but would be obvious as explained below), determine an offset of said downstream frequency (Kawashima col. 8 lines 31-32: $\pm x\delta f$) compared to a nominal frequency (Kawashima col. 8 lines 31, : compared to no frequency change or 0 from the prior frequency), and adjust a receiving frequency of the radio so the offset is eliminated (Kawashima col. 1 lines 30-35).

5. Kawashima does not teach to detect a center frequency. Standard 1037C teaches that center frequency is a synonym for carrier frequency. Kawashima discusses carrier wave signal (Kawashima col. 1 line 42) which as a modulated signal has to be demodulated in order for it to be understood. The signal is detected when received for demodulation (Kawashima col. 1 lines 23-30) and the carrier wave inherently has a frequency dubbed carrier frequency and carrier frequency has a glossary definition to be a synonym of center frequency. Also, since Kawashima is detecting the difference between the old frequency and the new frequency as indicated by the frequency change (Kawashima fig. 7), Kawashima is detecting the difference between the old center frequency and the new center frequency and hence it is detecting a center frequency. If there is only one channel frequency (Kawashima col. 1 line 21) that a signal is at, then the channel frequency is the center frequency of the signal. If the signal is over a wider bandwidth, then the center of that bandwidth is the center frequency of the signal since if the center frequency was not tuned to the center of the bandwidth then the signal would not be clear (like when one tunes to a particular radio station). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of

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Kawashima with to detect a center frequency as recited by the instant claims, because Kawashima teaches carrier wave (Kawashima col. 1 line 42) which would lead to a carrier frequency and also Kawashima suggests determining a frequency change (fig. 7) which would involve detecting a center frequency as explained above in the analogous art of controlling the transmission frequency based on the reception frequency (Kawashima: title; col. 1 lines 20-21).

6. Kawashima does not teach lock onto said downstream channel by changing a receiving frequency of the radio signals from the wireless modem according to a predetermined frequency plan until the radio is locked onto said downstream channel. Spears teaches lock onto said downstream channel by changing a receiving frequency of the radio signals from the wireless modem according to a predetermined frequency plan until the radio is locked onto said downstream channel (Spears col. 7 lines 40-55: stepping through based on frequency step size is the predetermined frequency plan for locking). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the lock onto said downstream channel by changing a receiving frequency of the radio signals from the wireless modem according to a predetermined frequency plan until the radio is locked onto said downstream channel as recited by the instant claims, because the combined teaching of Kawashima with Spears suggest lock onto said downstream channel by changing a receiving frequency of the radio signals from the wireless modem according to a predetermined frequency plan until the radio is locked onto said downstream channel as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Kawashima with Spears because Kawashima suggests frequency control (something broad) in general and Spears suggests the beneficial use of having enough control over the

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frequency such that the frequency is locked for synchronization to occur in the analogous art of frequency control.

7. As per claims 14-17, see prior action for details.

Allowable Subject Matter

8. Claims 1-8, 11 are allowed. See prior action for details.

9. Claims 23-27 are allowed for the same reason as claim 1.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pankaj Kumar
Patent Examiner
Art Unit 2631

PK


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER